

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/030135 A2

- (51) International Patent Classification⁷: **A61K** 01832 (US). WEY, Shlow-Jyi [CN/US]; 10 Charnstaffe Lane, Unit 302, Billerica, MA 01821 (US).
- (21) International Application Number: PCT/US2004/031372 (74) Agents: GRIEFF, Edward, D. et al.; Wilmer Cutler Pickering Hale and Dorr LLP, 1455 Pennsylvania Avenue, Northwest, Washington, DC 20004 (US).
- (22) International Filing Date: 27 September 2004 (27.09.2004) (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/505,921 26 September 2003 (26.09.2003) US
- (71) Applicant (for all designated States except US): NITROMED, INC. [US/US]; 125 Spring Street, Lexington, MA 02421 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GARVEY, David, S. [US/US]; 10 Grand Hill Drive, Dover, MA 02030 (US). EARL, Richard, A. [US/US]; 6 Kylemore Drive, Westford, MA 01886 (US). EZAWA, Maiko [JP/US]; 36 Drummer Road, Acton, MA 01720 (US). FANG, Xinqin [US/US]; 77 Bow Street, Lexington, MA 02420 (US). GASTON, Ricky, D. [US/US]; 252 Kennedy Drive, No. 512, Malden, MA 02148 (US). KHANAPURE, Subhash, P. [IN/US]; 3 Colonial Drive, Clinton, MA 01510 (US). LIN, Chia-En [US/US]; 98 Prescott Road, Concord, MA 01742 (US). RANATUNGE, Ramani, R. [US/US]; 11 Bates Road, Lexington, MA 02421 (US). STEVENSON, Cheri, A. [US/US]; 81 Old Yankee Road, Haverhill, MA
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NITROSATED GLUTAMIC ACID COMPOUNDS, COMPOSITIONS AND METHODS OF USE

(57) Abstract: The invention describes novel nitrosated glutamic acid compounds and pharmaceutically acceptable salts thereof, and novel compositions comprising at least one nitrosated glutamic acid compound, and, optionally, at least one nitric oxide donor and/or at least one therapeutic agent. The invention also provides novel kits comprising at least one nitrosated glutamic acid compound, and, and, optionally, at least one nitric oxide donor compound and/or at least one therapeutic agent. The invention also provides methods for (a) treating cardiovascular diseases; (b) treating renovascular diseases; (c) treating diabetes; (d) treating diseases resulting from oxidative stress; (e) treating endothelial dysfunctions; (f) treating diseases caused by endothelial dysfunctions; (g) treating cirrhosis; (h) treating pre-eclampsia; (j) treating osteoporosis; (k) treating nephropathy; (l) treating diseases resulting from elevated levels of gamma-glutamyl transpeptidase and (m) the targeted delivery of compounds and nitric oxide to organs, cells or tissues containing the enzyme gamma-glutamyl transpeptidase.



WO 2005/030135 A2